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**Lee et al.**

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(54) **SYSTEMS AND METHODS FOR PEDAL REVASCULARIZATION ASSESSMENT**

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(58) **Field of Classification Search**

None

See application file for complete search history.

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**ABSTRACT**

Diffuse optical flow (DOF) sensors can be used to assess deep tissue flow. DOF sensors positioned on a foot can provide fluctuating light intensity data to an analyzer, which can then determine absolute and/or relative blood flow. The determined absolute and/or relative blood flow can be signaled to an operator, for example a surgeon for intra-operative use. DOF sensors may be utilized to assess pedal revascularization, for example to guide interventional procedures and to evaluate their efficacy. A support structure can carry a plurality of DOF sensors, such that when the support structure is placed onto a patient's foot, the DOF sensors are disposed adjacent different locations on the foot. The different locations may correspond to different topographical regions of the foot, for example different pedal angiosomes.

**22 Claims, 16 Drawing Sheets**

